SEQUENCE LISTING

<110> Diversa Corporation Morgan, Brian Burk, Mark Levin, Michael Zhu, Zoulin Chaplin, Jennifer Kustedjo, Karen Huang, Zilin Greenberg, William , <120> METHODS FOR MAKING SIMVASTATIN AND INTERMEDIATES <130> 564462012840 <140> Not Yet Assigned. <141> 2004-10-20 <150> US 60/542,100 <151> 2004-02-04 <150> US 60/513,237 <151> 2003-10-21 <160> 6 <170> PatentIn version 3.1 <210> 1 <211> 1629 <212> DNA <213> Unknown <220> <223> Environmental <400> 1 atgageettt gegteatteg atteategee ggaactttgg taettgtgge gteagtggaa 60 teggeagttg cteaacaage gtgtgetgae etgatgggee tegagetgee gtatacaaeg 120 ataacgtccg ctgcagtggc taccgagggc ccaatcccac agccggcgat ctttggaagc 180 actgacccca ttgtggctcc agagcgatgt gaagtgcggg cggtcacgcg ccctacgaag 240 gactccgaga ttcgaatcga gctctggctg ccgctctccg gatggaacgg aaagtatcta 300 caaattggta gcggtggctg ggctggttcg atcaatcgaa cggggctgat aggccctctt 360 cagegeggtt atgeegtage egcaacegae aatggeeata teagegaagg tttggtgeet 420 gacgcctcct gggctatcgg ccatccgcaa aagctgatcg atttcggtta tcgcgccgtg 480 cacgaaacaa gtgttcaggc caaagctatc ctgcgcgcct actttggccg cggtcaggat 540 ctgagctact tcagcggttg ttctaatggc ggacgcgagg ctctcatgga ggcgcagcgc 600

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Glu Gly Pro Ile Pro Gln Pro Ala Ile Phe Gly Ser Thr Asp Pro Ile 50 55

- Val Ala Pro Glu Arg Cys Glu Val Arg Ala Val Thr Arg Pro Thr Lys 65 70 75 80
- Asp Ser Glu Ile Arg Ile Glu Leu Trp Leu Pro Leu Ser Gly Trp Asn 85 90 95
- Gly Lys Tyr Leu Gln Ile Gly Ser Gly Gly Trp Ala Gly Ser Ile Asn 100 105 110
- Arg Thr Gly Leu Ile Gly Pro Leu Gln Arg Gly Tyr Ala Val Ala Ala 115 120 125
- Thr Asp Asn Gly His Ile Ser Glu Gly Leu Val Pro Asp Ala Ser Trp 130 135
- Ala Ile Gly His Pro Gln Lys Leu Ile Asp Phe Gly Tyr Arg Ala Val 145 150 150 160
- His Glu Thr Ser Val Gln Ala Lys Ala Ile Leu Arg Ala Tyr Phe Gly
- Arg Gly Gln Asp Leu Ser Tyr Phe Ser Gly Cys Ser Asn Gly Gly Arg 180 185 190
- Glu Ala Leu Met Glu Ala Gln Arg Tyr Pro Glu Asp Phe Glu Gly Ile 195 200 205
- Ile Ala Gly Ala Pro Ala Asn Asn Trp Ser Arg Leu Phe Thr Gly Phe 210 215 220
- Val Trp Asn Glu Arg Ala Leu Ala Asp Asp Pro Ile Pro Pro Ala Lys 225 230 230
- Leu Thr Ala Ile Gln Ala Ala Ala Ile Ala Ala Cys Asp Thr Leu Asp 245 250 255
- Gly Val Glu Asp Gly Leu Ile Glu Asn Pro Arg Ala Cys Ser Phe Asp 260 265 270
- Pro Arg Ser Met Val Cys Thr Ala Asp Asp Ala Ser Asp Cys Leu Thr

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280

285

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Pro Arg Thr Gly Glu Arg Ile Phe Pro Gly Tyr Pro Met Gly Thr Glu 305 310 315

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Val Pro Ser Ile Gln Ala Ser Phe Gly Asn Ser Tyr Tyr Gly His Ala 340 345 350

Val Phe Glu Gln Ser Asn Trp Asp Phe Arg Thr Leu Asp Phe Asp Gln 355 360

Asp Val Ala Phe Gly Asp Ala Lys Ala Gly Pro Val Leu Asn Ala Thr 370 375 380

Asn Pro Asp Leu Arg Ser Phe Arg Ala Asn Gly Gly Lys Leu Ile Gln 385 390 395

Tyr His Gly Trp Gly Asp Ala Ala Ile Thr Ala Phe Ser Ser Ile Asp 405 410 415

Tyr Tyr Glu Asn Val Arg Ala Phe Leu Asp Arg Phe Pro Asp Pro Arg 420 425 430

Ser Glu Asn Thr Asp Ile Asp Gly Phe Tyr Arg Leu Phe Leu Val Pro 435 440

Gly Met Gly His Cys Ser Gly Gly Ile Gly Pro Ser Ser Phe Gly Asn 450 455

Gly Phe Arg Ser Ala Arg Thr Asp Ala Glu His Asp Leu Leu Ser Ala 465 470 475 480

Leu Glu Ala Trp Val Glu Arg Asp Thr Ala Pro Glu Arg Leu Ile Gly 485 490 495

Thr Gly Thr Ala Val Gly Asp Pro Thr Ala Thr Leu Thr Arg Pro Leu 500 505 510

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Ala Arg Ala Asp Thr Gln Thr Pro Trp Thr Ala Glu Thr Val Ser Ile 55 50

Val Phe Ser Ser Thr Lys Gly Ala Thr Ala Leu Cys Ala His Met Leu 70 65

Ala Ser Arg Gly Gln Leu Asp Leu Asp Ala Pro Val Ala Thr Tyr Trp

Pro Glu Phe Ala Gln Ala Gly Lys Ala Arg Ile Pro Val Lys Met Leu 105 100

Leu Asn His Gln Ala Gly Leu Pro Ala Val Arg Thr Pro Leu Pro Gln 120 115

Gly Ala Tyr Ala Asp Trp Glu Leu Met Val Asn Thr Leu Ala Lys Glu 135 130

Glu Pro Phe Trp Glu Pro Gly Thr Arg Asn Gly Tyr His Ala Leu Thr 150 145

Met Gly Trp Leu Val Gly Glu Val Val Arg Arg Val Ser Gly Lys Ser 170 165

Leu Gly Thr Phe Phe Gln Glu Glu Ile Ala Arg Pro Leu Gly Leu Asp 180 185 190

Phe Trp Ile Gly Leu Pro Ala Glu Gln Glu Ala Arg Val Ala Pro Met 195 200 205

Ile Ala Ala Glu Pro Asp Pro Gln Ser Leu Phe Phe Gln Glu Val Ala 210 215 220

Lys Pro Gly Ala Leu Gln Ser Leu Val Leu Leu Asn Ser Gly Gly Tyr 225 230 235

Met Gly Ala Gln Pro Glu Tyr Asp Ser Arg Ala Ala His Ala Ala Glu 245 250 255

Ile Gly Ala Ala Gly Gly Ile Thr Asn Ala Arg Gly Leu Ala Gly Met 260 265 270

Tyr Ala Pro Leu Ala Cys Gly Gly Lys Leu Lys Gly Val Glu Leu Val 275 280 285

Ser Pro Asp Met Leu Ala Arg Met Ser Arg Val Ala Ser Ala Thr Gly 290 295 300

Arg Asp Ala Val Leu Met Met Pro Thr Arg Phe Ala Leu Gly Phe Met

Lys Ser Met Asp Asn Arg Arg Glu Pro Ala Gly Val Gln Asp Ser Ala 325 330 335

Leu Phe Gly Glu Glu Ala Phe Gly His Val Gly Ala Gly Gly Ser Phe 340 345 350

Gly Phe Ala Asp Pro Lys Ala Gly Met Ser Phe Gly Tyr Thr Met Asn 355 360 365

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Ala Gln Thr Val Thr Thr Gly Ser Leu Thr Pro Pro Gly Ser Thr Asn 50 55 60

Pro Ile Thr Asp Leu Pro Pro Phe Cys Arg Val Thr Gly Ala Ile Ala 65 70 75 80

Pro Thr Ser Glu Ser His Ile Leu Phe Glu Val Trp Leu Pro Leu Asp 85 90 95

Lys Trp Asn Gly Lys Phe Ala Gly Val Gly Asn Gly Gly Trp Ala Gly 100 105 110

Ile Ile Ser Phe Gly Ala Leu Gly Ser Gln Leu Lys Arg Gly Tyr Ala 115 120 125

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- Gly Gly Tyr Gln Gly Leu Met Glu Ala Gln Arg Phe Pro Ala Asp Tyr
- Asp,Gly Ile Val Ala Gly Met Pro Ala Asn Asn Trp Thr Arg Leu Met 210 215 220
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- His Leu Pro Val Ser Ala Leu Gly Leu Leu Tyr Arg Ser Val Leu Ala 245 250 255
- Ala Cys Asp Gly Ile Asp Gly Val Val Asp Gly Val Leu Glu Asp Pro 260 265 270
- Arg Arg Cys Arg Phe Asp Pro Ala Val Leu Met Cys Lys Ala Asp Gln 275 280 285
- Asn Pro Asp Gly Cys Leu Thr Pro Ala Gln Val Glu Ala Ala Arg Arg
- Ile Tyr Gly Gly Leu Lys Asp Pro Lys Thr Gly Ala Gln Leu Tyr Pro 305 310 315
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- Ile Asp Tyr Tyr Glu Ser Val Leu Ser Phe Phe Gly Ser Gly Lys Gln 420 425 430
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- Gly Asp Thr Asn Asp Ala Ala Asn Phe Val Cys Arg Asp 515 520 525